APPENDIX I

MEMBERSHIP OF THE ADVISORY COMMITTEE ON DEVELOPMENT CHARGES & OFF-SITE LEVIES

NAME		REPRESENTING
Chairman		
D. Cole		
Members		
G. Clegg	Councillor M.D. of Fairview	Alberta Association of Municipal Districts & Counties
L. Gilchrist	Alderman City of Calgary	Alberta Urban Municipalities Association
L. Dougherty	Mayor Town of High River	Alberta Urban Municipalities Association
A. Foss	Councillor Town of Hinton	Alberta Urban Municipalities Association
G. Walker	Walker, Newby & Assoc.	Alberta Home Builders' Association
P. Daly	Melcor Developments Ltd.	Urban Development Institute Alberta
A. Skoreyko	Nu-West Group Ltd.	Urban Development Institute Alberta
F. Thomas	Genstar Developments	Urban Development Institute Alberta
J. Thomas	Assistant Deputy Minister	Planning Services Division Alberta Municipal Affairs
B. Quickfall	Assistant Deputy Minister	Financial Assistance and Research Division Alberta Housing
D. Shillabeer	Executive Director	Municipal Utilities Division Alberta Utilities
Advisors		
G. Power	Director	Research & Development Branch Planning Services Division Alberta Municipal Affairs
P. Nichols	Consultant	Nichols Applied Management
D. Barry	Director	Planning Implementation Branch City of Edmonton
L. Guyn	Manager	Engineering Department Urban Development Division City of Calgary

APPENDIX II

BRIEFS, SUBMISSIONS, LETTERS AND OTHER COMMUNICATIONS

Briefs and Submissions

Urban Development Institute Calgary Chapter
Alberta Urban Municipalities Association
Red Deer Regional Planning Commission
A Review of Practice and Opinions in the South Peace Regional Planning Commission - February 1986

Letters

Melcor Developments Ltd. - July 11, 1985
Improvement Districts Association - September 24, 1985
Alberta Association Canadian Institute of Planners - September 12, 1985
Camrose R.C. Separate School District No. 60 - October 18, 1985
City of Red Deer - November 18, 1985
Town of Olds - November 14, 1985
Town of Bowden - November 13. 1985
Town of Penhold - November 13, 1985
Town of Castor - November 13, 1985
County of Strathcona No. 20 - December 4, 1985
M.D. of Rocky View No. 44 - January 15, 1986
Camrose R.C. Separate School District No. 60 - January 31, 1986

Other Communications

Urban Transportation Noise Policy, City of Edmonton, Transportation Department - November 20, 1985
City of St. Albert - Off-site Levies & Development Charges - November 14, 1985
City of Edmonton Land Servicing Guidelines - June 20, 1984
Administration Comments - City of Edmonton - March 19, 1986

The Committee wishes to express its appreciation for the co-operation and assistance offered by the administrative staff of the following municipalities

Calgary	Spruce Grove
Edmonton	Okotoks
St. Albert	Grand Centre
Red Deer	County of Strathcona
Lethbridge	M.D. of Rocky View

APPENDIX III

RECORD OF MEETINGS

MEETING NO.	DATE	PLACE
1	June 26, 1985	8th Floor Boardroom Jarvis Building
2	Nov. 13, 1985	9th Floor Boardroom Jarvis Building
3	Dec. 4, 1985	9th Floor Boardroom Jarvis Building
4	Dec. 11, 1985	9th Floor Boardroom Jarvis Building
5	Dec. 18, 1985	9th Floor Boardroom Jarvis Building
6	Jan. 8, 1986	9th Floor Boardroom Jarvis Building
7	Jan. 15, 1986	8th Floor Boardroom Jarvis Building
8	Feb. 6, 1986	9th Floor Boardroom Jarvis Building
9	Feb. 19, 1986	11th Floor Boardroom Jarvis Building
10	Feb. 26, 1986	11th Floor Boardroom Jarvis Building
11	March 12, 1986	11th Floor Boardroom Jarvis Building
12	March 19, 1986	9th Floor Boardroom Jarvis Building
13	March 26, 1986	9th Floor Boardroom Jarvis Building

APPENDIX IV

A METHOD FOR THE ALLOCATION AND RECOVERY OF OFF-SITE AND OVERSIZE COSTS

PURPOSE

The purpose of the following proposal is to develop a method of recovering oversize and off-site costs that minimizes or eliminates the problems identified with many of the current applied methods of allocation employed by municipalities.

These problems are: inequitable allocation of costs between the first developer and later developers in a joint servicing scheme; cost allocation that fails to encourage the most efficient system design given the state of knowledge about the prospective rate of growth and economies of scale; allocation that leaves too large a share of total capital outstanding after the early years of development, thereby increasing the possibility of large accumulations of interest and carrying charges in later years; and the risk that later developers may be forced to pay accumulated capital and interest, even though cheaper alternative systems become available.

ASSUMPTIONS

1. A developer should not be required to front-end any more than a base cost equivalent to the cost of a stand-alone system that would be incurred to develop an area without recognition of subsequent developments. A ceiling on the front-end obligations of a developer is the current cost of a stand-alone system.

2. The municipality will finance those incremental costs in excess of the accumulated costs of developing up to and including a particular area.

   Some cushion could be added to the amounts carried by the municipality to compensate it for its risk and to offset those instances where costs cannot be recovered due to the lack of anticipated development of infrastructure obsolescence.

3. Economies of scale will only be passed on to development when they have been realized. Reimbursement can be made to earlier developers only to recognize the oversizing benefits obtained to that point.

4. Levies allocated to a particular developer should not cause servicing costs to exceed the current costs of servicing the same area separately from an alternative system.

5. Subject to the above, interest and carrying costs should be applied to outstanding debt.

6. Servicing costs should be net of government grants, costs allocable to the municipality as a whole and municipal debt accumulated for other systems.

EXAMPLES

In the following examples five developers are involved in a catchment area and contribute to the cost of capacity for the area. The municipality carries the incremental costs of capacity for the area at any point in time. The five developers share costs amongst themselves on a pro-rata basis. For the sake of simplicity the shares of each developer are the same i.e. 20% of the capacity, but

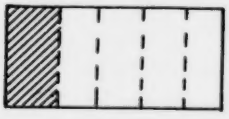
the same principle of cost sharing could be applied if the shares were different. Example 1, applied to off-site costs, represents the simplest case where interest costs are ignored. This is clearly an artificial assumption, but serves best to illustrate how the calculations are made. Example 1A shows the same amounts as Example 1, but includes interest at 10% annually.

Example 2 shows the same cost sharing principles applied to oversized on-site costs, including interest at 10% annually. The first part of the example shows the sizes of pipe and costs necessitated by each area as a basis for the example. The second part shows the cost calculations based on the same assumptions and principles employed in Example 1.

EXAMPLE 1 - OFF-SITE TRUNK UTILITY

(IGNORING INTEREST COSTS)

1ST AREA

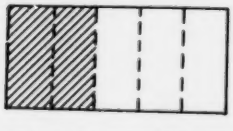


COST VS. SERVICE AREA

# OF AREAS (I.E. # OF DEVELOPERS)	TOTAL COST	INCREMENTAL COST
1	$ 280,000	$ 280,000
2	440,000	160,000
3	510,000	70,000
4	560,000	50,000
5	600,000	40,000

COST OF SYSTEM FOR AREA 1 ONLY	280,000
THEREFORE DEVELOPER'S AMOUNT IS: 280,000 : 1 =	280,000
MUNICIPALITY'S AMOUNT IS: 600,000 - 280,000 =	320,000

2ND AREA



COST OF SYSTEM FOR 2 AREAS	440,000
THEREFORE DEVELOPERS' AMOUNT IS:	440,000
AMOUNT PER DEVELOPER IS: 440,000 : 2 =	220,000

THEREFORE DEVELOPER 2 PAYS 220,000, OF WHICH 60,000 IS PAID TO DEVELOPER 1, DEVELOPER 1 IS NOW CARRYING 280,000 - 60,000 = 220,000 (SAME AS DEVELOPER 2).

140,000 IS RETAINED BY MUNICIPALITY TO REDUCE ITS INVESTMENT.

MUNICIPALITY'S AMOUNT IS: 600,000 - 440,000	160,000

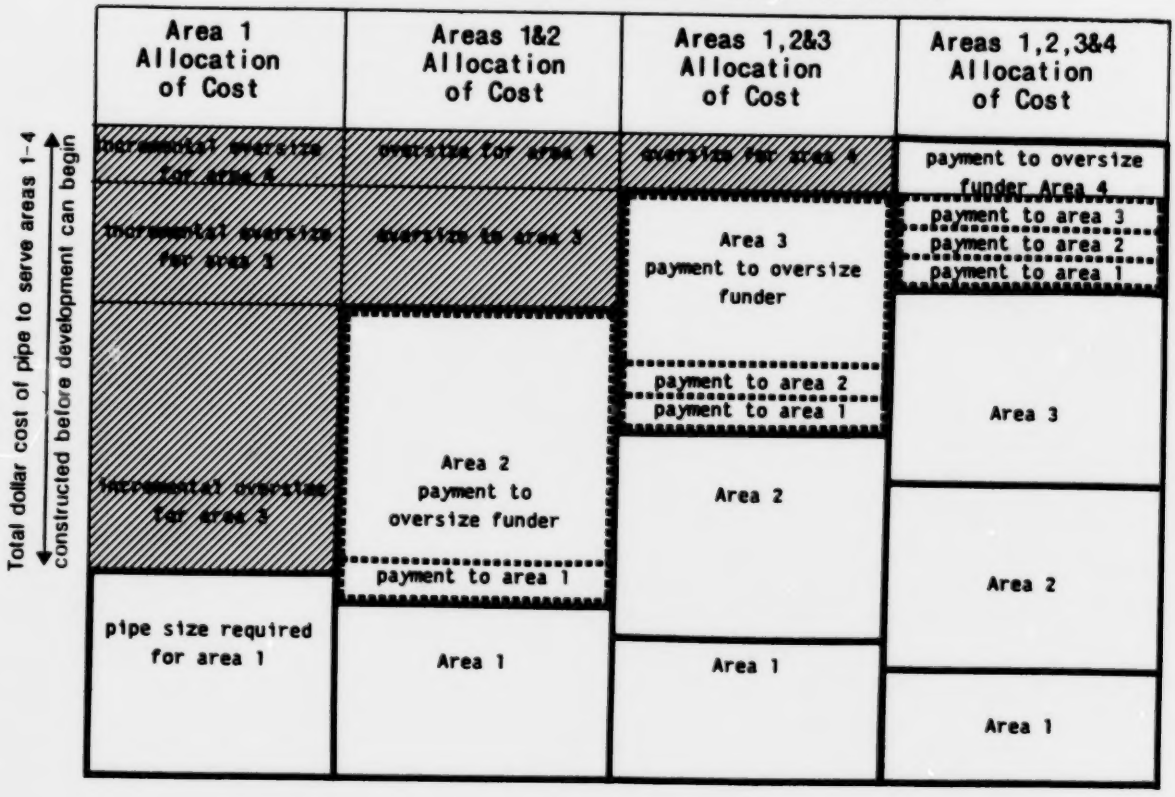
THIS FIGURE CAN ALSO BE CALCULATED AS FOLLOWS:

MUNICIPALITY'S AMOUNT AFTER DEVELOPER 1		320,000
DEVELOPER 2'S LEVY:	220,000	
	60,000 PAID TO DEVELOPER 1	
	160,000 PAID TO MUNICIPALITY	
MUNICIPALITY'S AMOUNT REMAINING:		160,000

NOTE: THAT IN PRACTICE, THE LEVY REIMBURSES THE MUNICIPALITY FIRST.

CHART 1

ALLOCATION OF INCREMENTAL COSTS FOR OFF SITE FACILITIES (TRUNKS/TRANSMISSION LINES)


Area 1 Allocation of Cost
Areas 1&2 Allocation of Cost
Areas 1,2,3 Allocation of Cost
Areas 1,2,3&4 Allocation of Cost
Total dollar cost of pipe to serve areas 1-4
constructed before development can begin
incremental oversize for area 4
incremental oversize for area 3
incremental oversize for area 2
pipe size required for area 1
oversize for area 4
oversize to area 3
Area 2 payment to oversize funder
payment to area 1
Area 1
oversize for area 4
Area 3 payment to oversize funder
payment to area 2
payment to area 1
Area 2
Area 1
payment to oversize funder Area 4
payment to area 3
payment to area 2
payment to area 1
Area 3
Area 2
Area 1

Unused oversize-funded preferably by municipality. This is the limit of funders investment at any time.

area x
area y

Funded by all development to date, shared equally; (per hectare or unit of capacity). Carrying costs added to each share as applicable.

to initial funder of oversize
to earlier developers

Distribution of payment to initial funding agent (preferably municipality) and to earlier developers to give them the benefit of economies of scale as it is realized.

EXAMPLE 1A - EXAMPLE 1 WITH INTEREST COSTS

ASSUME: 1 AREA PER YEAR
10% INTEREST/YEAR

YEAR 1, 1ST AREA

AMOUNTS AS BEFORE	DEVELOPER'S AMOUNT	280,000
	MUNICIPALITY'S AMOUNT	320,000

YEAR 2, 2ND AREA

AMOUNT PER DEVELOPER (AS BEFORE)	220,000
PLUS 10% INTEREST	22,000
NEW AMOUNT	242,000

THIS LEVY OF 242,000 IS PAID:
176,000 TO MUNICIPALITY (160,000 PLUS INTEREST)
66,000 TO DEVELOPER 1 (60,000 PLUS INTEREST)

AT THIS POINT IN TIME, THE MUNICIPALITY IS CARRYING:

ORIGINAL AMOUNT	320,000
PLUS 10% INTEREST	32,000
	352,000
LESS DEVELOPER 2 LEVY	176,000
NET AMOUNT	176,000

FOR ANY DEVELOPER, THE LEVY IS THE ORIGINAL TOTAL COST FOR THAT NUMBER OF AREAS DEVELOPED DIVIDED BY THE NUMBER OF AREAS PLUS INTEREST COMPOUNDED TO DATE CALCULATED FROM THE DATE OF CONSTRUCTION.

YEAR 3, 3RD AREA

AMOUNT PER DEVELOPER 510,000 : 3 =	170,000
PLUS 10% INTEREST COMPOUNDED FOR 2 YEARS	35,700
NET AMOUNT	205,700

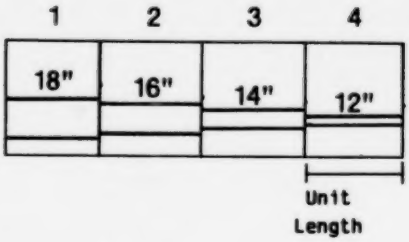
THIS LEVY OF 205,700 IS PAID:
84,700 TO MUNICIPALITY (70,000 PLUS INTEREST)
60,500 TO EACH OF DEVELOPERS 1 & 2 (50,000 PLUS INTEREST)

AT THIS POINT IN TIME, MUNICIPALITY IS CARRYING:

PREVIOUS NET AMOUNT	176,000
PLUS 10% INTEREST	17,600
	193,600
LESS DEVELOPER 3 LEVY	84,700
NET AMOUNT	108,900

AND DEVELOPERS 1, 2 AND 3 ARE CARRYING 170,000 EACH PLUS APPROPRIATE CARRYING CHARGES.

EXAMPLE 2 - ON-SITE OVERSIZE UTILITIES



Area	Pipe Diameter	INSTALLED COST Cost per Unit Length
1	12"	$ 140
1 + 2	14"	$ 160
1 + 2 + 3	16"	$ 170
1 + 2 + 3 + 4	18"	$ 175

COSTS NECESSITATED BY EACH AREA

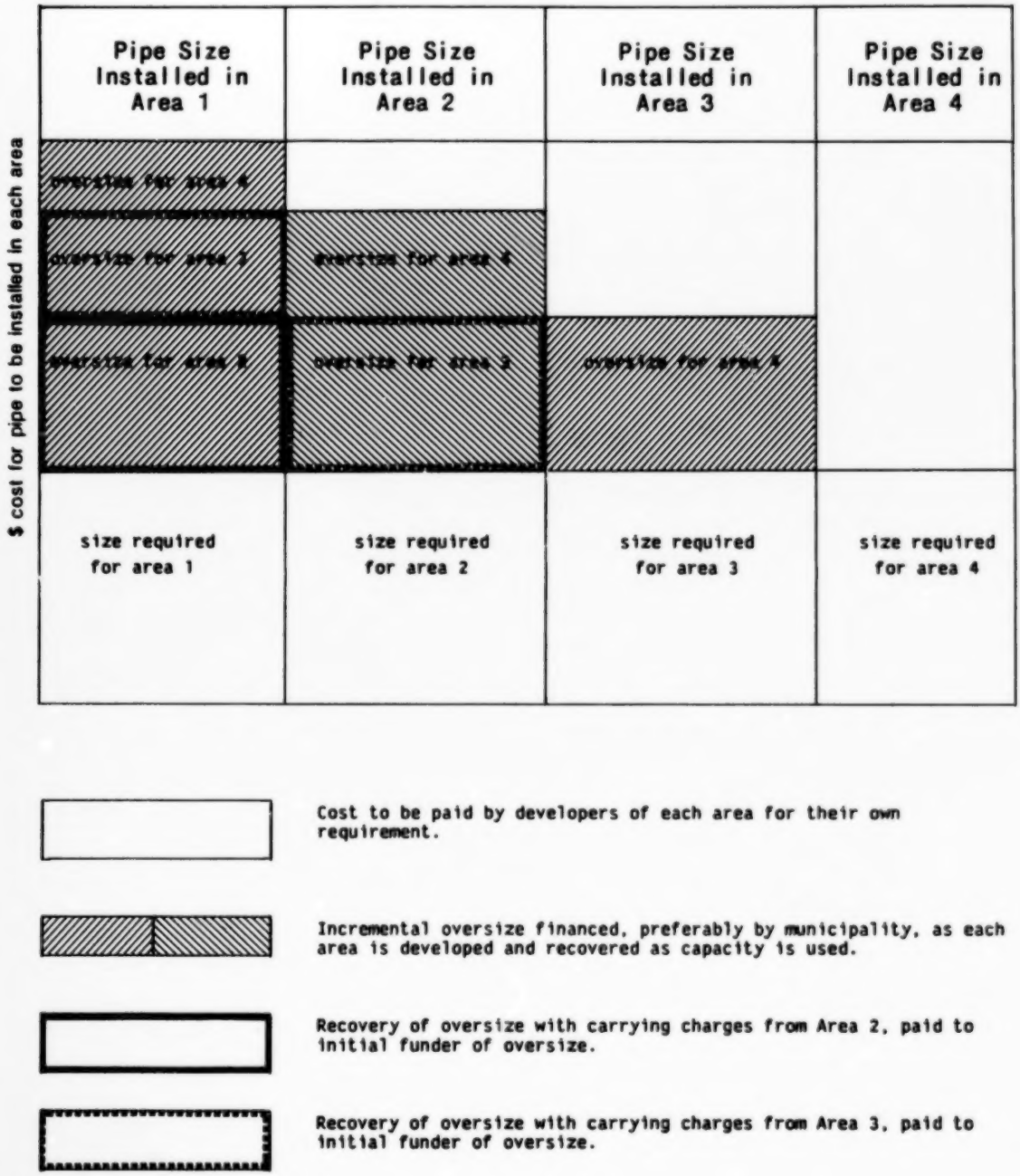
Area	Allocated Pipe Size	Cost		Total Cost
1	1@12"			$140
2	1@12"		$140	
	1@14"-12"	$160-$140	$ 20	$160
3	1@12"		$140	
	1@14"-12"	$160-$140	$ 20	
	1@16"-14"	$170-$160	$ 10	$170
4	1@12"		$140	
	1@14"-12"	$160-$140	$ 20	
	1@16"-14"	$170-$160	$ 10	
	1@18"-16"	$175-$170	$ 5	$175

EXAMPLE 2 - OVERSIZED ONSITES

DEVELOPER CALCULATIONS		MUNICIPAL CALCULATIONS	
Developer's cost is single area cost plus levy for PRIOR oversizing.			
ASSUME: 1 Area per year			
Interest at 10.0%			
AREA 1			MUNICIPAL ACCOUNT BALANCE
Trunk cost (1@18")	175.000		
Less single area cost (1@12")	140.000		
Oversized Amount	35.000		35.000
AREA 2			
Trunk cost (1@16")	170.000	Plus Interest	3.500
Less single area cost (1@12")	140.000		
Oversized Amount	30.000	Oversized Amount	30.000
			68.500
Levy for prior oversizing			
Cost of 14" less 12"	20.000		
Plus 1 year's interest	2.000		
Levy Amount	22.000	Less Levy received	22.000
		Net Amount	46.500
AREA 3			
Trunk cost (1@14")	160.000	Plus Interest	4.650
Less single area cost (1@12")	140.000		
Oversized Amount	20.000	Oversized Amount	20.000
			71.150
Levy for prior oversizing			
Year (-1):			
Cost of 14" less 12"	20.000		
Plus 1 year's interest	2.000		
Year (-2):			
Cost of 16" less 14"	10.000		
Plus 2 year's interest	2.100		
Total levy	34.100	Less Levy received	34.100
		Net Amount	37.050
AREA 4			
Trunk cost (1@12")	140.000	Plus Interest	3.705
(NO OVERSIZING)			40.755
Levy for prior oversizing			
Year (-1): As above	22.000		
Year (-2): As above	12.100		
Year (-3):			
Cost of 18" less 16"	5.000		
Plus 3 year's interest	1.655	Less Levy received	40.755
Total Levy	40.755	Net Amount	0.000

CHART 2

ALLOCATION OF INCREMENTAL COSTS FOR ON SITE OVERSIZE FACILITIES


$ cost for pipe to be installed in each area
Pipe Size Installed in Area 1
Pipe Size Installed in Area 2
Pipe Size Installed in Area 3
Pipe Size Installed in Area 4
oversize for area 4
oversize for area 3
oversize for area 2
oversize for area 4
oversize for area 3
oversize for area 4
size required for area 1
size required for area 2
size required for area 3
size required for area 4
Cost to be paid by developers of each area for their own requirement.
Incremental oversize financed, preferably by municipality, as each area is developed and recovered as capacity is used.
Recovery of oversize with carrying charges from Area 2, paid to initial funder of oversize.
Recovery of oversize with carrying charges from Area 3, paid to initial funder of oversize.

APPENDIX V

EXECUTIVE SUMMARY FROM "REVIEW & EVALUATION OF DEVELOPMENT LEVIES AND CHARGES;" NICHOLS, APPLIED MANAGEMENT, MARCH 1984

1. The study investigates existing practices in respect of lot levies and land development charges in Alberta. This subject is of extreme importance to both municipalities and the land development industry.

2. There has been a marked change in financing policies over the past decade, having regard to the provision of municipal facilities required to accommodate growth. Formerly, most municipalities financed these facilities through the local tax system, that is, through general tax revenues or local improvement taxes. In more recent years, there has been an increasing tendency to require that these facilities be prepaid by land developers.

3. Factors that may have contributed to this shift in financing policies include:

   - the perception that residential subdivisions generate more costs than revenues for the municipality and that compensatory payments are required to offset the disparity;

   - municipal authorities have a vested interest in protecting the financial interests of existing, not future, residents;

   - increased financial demands on municipalities induced them to search for new revenue sources, and the development industry, which was prospering under the rapid growth

conditions of the 1970's, appeared able and prepared to accept additional costs, especially if it meant expediting the development process.

4. In light of current economic conditions, the development industry now questions whether the residential land market can absorb the off-site levies and other charges established during more prosperous periods and it is critically reexamining the appropriateness of existing infrastructure financing practices.

5. A continuation of existing financing practices may cause some severe inequities and dislocations when municipal facilities reach obsolescence and must be replaced. At such times, the replacement costs will likely be covered through general tax revenues or user fees, which may have to increase substantially. Replacement costs are not provided for in the existing financing system, which tends to understate the real level of municipal service costs.

6. Off-site charges have increased dramatically over the past decade and appear to equal roughly 5% to 15% of residential lot prices.

7. Most, if not all, communities require that a residential land developer provide the essential on-site services to support a particular project and this is generally accepted. The main issues revolve around the provision of financing of off-site infrastructure, oversized on-site facilities, and other municipal services directly or indirectly associated with a new development. Although there appear to be general tendencies among municipalities to finance specific facilities in certain ways, a wide spectrum of arrangements does in fact prevail. The range of current practice is not necessarily unhealthy, and may reflect different local needs, circumstances, and market

conditions.

8. The methodologies employed by municipalities to determine an appropriate structure of charges and levies vary from highly sophisticated analytical techniques to the simple duplication of charges which apply in other communities. A key issue in the determination of charges and levies is the allocation of facility costs as between new and existing areas within a municipality.

9. The timing of payments required under development agreements has become increasingly important to developers, who have pressed for a relaxation of front-end charges and for disbursements to be more evenly matched with development staging and land sales. There is some evidence that municipalities are responding positively to these proposals.

10. A majority of municipalities has established reserve accounts in which levies and other capital charges are deposited, but there are no consistent procedures for the accounting of such receipts. The major concern of developers is that municipalities may not spend the funds collected for the purposes intended. Most municipalities and developers seem to agree on the need for a stricter accounting of off-site recoveries such that an "audit" can be periodically carried out to determine the source and allocation of the funds.

11. Only about one-half of the municipalities contacted credit interest earnings to levy revenues and reserves. In those instances where levies are designated for future facilities, it would seem most appropriate to credit interest earnings to the reserve account. The alternative use of interest earnings as a source of general revenues provides a misleading picture of the current fiscal health of the municipality and implies a possible

erosion, in real terms, of the reserve account.

12. The financial implications of infrastructure oversizing can be significant where: 1) growth is rapid and occurs in large increments, 2) growth takes a multi-directional form, 3) "leap-frogging" is necessary between established areas and new areas, and 4) capacity thresholds are reached in major utility services. The major issues related to oversizing include:

    - the financing of oversizing requirements;
    - the provision for carrying costs;
    - the appropriate level of extra capacity, recognizing economies of scale, carrying costs, and growth rates in utilization; and
    - the allocation of oversizing costs to benefitting areas.

13. Municipal practices in respect of the front-ending of oversize requirements vary from community to community and by type of facility. The development industry currently plays a major role in the financing of oversized facilities but the question of who logically should assume this responsibility is an important and very basic one. Viewed in a longer-term perspective, the apparent lack of funding resources in both the municipal and land development sectors may ultimately affect the geographic location of urban development and the supply of, and competition for, serviced residential land.

14. In retrospect, it may be argued that excessively large infrastructure capacities were put in place by many municipalities in recent years. This may have been encouraged

to some degree by the ability of municipalities to apportion a share of the financing burden to the development industry. Part of the problem may also be attributable to inadequate facility development analyses, which often are biased toward "economy of scale" arguments, with insufficient attention devoted to opportunity costs, carrying costs, and utilitization projections.

15. The inadequacy of present arrangements for recovering oversizing costs from subsequent developers is of major concern to the development industry. Under normal arrangements, the initial developer is vulnerable to non-payment by subsequent developers and this is viewed as highly inequitable.

16. Most, but not all, municipalities provide for interest or carrying costs to be recovered from subsequent benefitting developers. The difficulty of attracting capital financing would be considerably compounded if the initial "banker" could not recapture interest costs on oversizing investments.

However, while it is reasonable that the party responsible for the front-ending be permitted to negotiate for interest costs, it is not clear that such carrying costs be entirely enforceable on subsequent developers, because:

- later developers may be penalized for the planning and investment mistakes of others;

- such charges could prejudice the economic viability of downstream developments; and

- the capability to transfer interest costs to other parties would reduce the incentive on the part of the initial planners

to design optimal facility increments.

The negotiation of oversizing recoveries between the parties affected may offer the most realistic solution to the problem.

17. Normally, a developer who front-ends oversized facilities may recover from subsequent benefitting developers their proportionate share of total costs. In some instances, however, only the incremental or marginal costs may be recovered from subsequent developments, with the first developer responsible for the costs that would have been incurred to satisfy his requirements alone.

18. Recognizing the anticipated difficulty of attracting funds from municipalities or developers to finance future oversizing requirements, the average versus marginal costs concept may offer an opportunity to establish a self-supporting and commercially viable financial institution. This "banker" or "broker" could negotiate a price to initial and subsequent developers for the right to buy into the infrastructure system. Profits on some investments could be made by selling capacity at a figure below that which would be otherwise incurred in developing an independent system but above residual average or municipal costs of the system in place.

19. Many different practices have evolved among Alberta municipalities for the recovery of infrastructure costs from new development. The Planning Act offers certain rules and provisions for cost recovery but the majority of communities currently bypass or avoid the legislative procedures in whole or in part and resort to the use of the development agreement to negotiate development charges and levies. There is a concern among those municipalities which have adopted policies

to recover costs not specifically mentioned in the Act that their agreements may be challenged, though these represent documents approved and signed by the two affected parties - municipality and developer.

20. There appears to be no unanimity as to the proper role of legislation in this area. The attitudes of individuals interviewed during the course of the study fall broadly into three categories:

- **Status quo**. In this view, the Planning Act is seen as presenting few problems and needing little in the way of change.

- **More restrictive legislation**. Some members of the development industry feel that they are coerced into the financing of facilities that more properly are the responsibility of municipalities and, accordingly, that municipalities should be constrained to only what is specifically permitted under the Act.

- **Deregulation**. At the other end of the spectrum of opinion is the suggestion that the relevant sections of the Planning Act dealing with off-site cost recovery should be virtually eliminated, leaving the matter to be determined at the local level through negotiation.

21. In view of the alternative legislative approaches that might be taken, it is suggested that work begin toward developing a municipal-industry concensus on the various issues. This could take the form of information sessions, seminars, and workshops involving Alberta Municipal Affairs, municipalities, and the development industry.